

**SITE INSPECTION**  
**DATA PACKAGING, INCORPORATED**

425 South 67th Avenue  
Phoenix, Arizona 85043  
Maricopa County

EPA ID#: AZD983467663

STATE ID#: 773



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June 30, 1992

**ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**OFFICE OF WATER QUALITY**  
**GROUNDWATER HYDROLOGY SECTION**  
**SITE ASSESSMENT HYDROLOGY UNIT**

THIS REPORT IS PRINTED ON RECYCLED PAPER

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**SECTION I**

**Site Inspection  
Data Packaging Incorporated**

**1.0 INTRODUCTION**

The U.S. Environmental Protection Agency (EPA), Region IX, under the authority of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA) has tasked the Arizona Department of Environmental Quality (ADEQ) Site Assessment Unit to conduct a Site Inspection (SI) at the Data Packaging Corporation (DPC) site in Phoenix, Maricopa County, Arizona.

DPC was identified as a potential hazardous waste site and entered into the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) on October 26, 1990 (AZD983467663). Following the discovery of ground water contamination in the West Van Buren Water Quality Assurance Revolving Fund Area (WQARF), a Phase I report on the area recommended DPC for further investigation in 1989. (1)

A Preliminary Assessment (PA) of DPC was completed by ADEQ in August of 1990. (2) The purpose of the PA was to review existing information on DPC and assess the threat, if any, posed to public health, welfare or the environment and to determine if further investigation under CERCLA/SARA was warranted. The PA recommended a Site Inspection (SI) under the CERCLA program. (2) EPA decided that further investigation of DPC would be necessary to more completely evaluate the site using EPA's Hazard Ranking System (HRS) criteria. The HRS assesses the relative threat associated with the actual or potential releases of hazardous substances from DPC. The HRS is the primary method of determining a site's eligibility for placement on EPA's National Priorities List (NPL). The NPL identifies sites at which EPA may conduct remedial response actions. This SI Report is the result of EPA's and ADEQ's recent investigation.

## 1.1

### Apparent Problem

In 1984, Chevron U.S.A. Inc. installed several ground water monitoring wells at a petroleum tank farm located at 5110 West Madison, Phoenix, AZ, (A-1-2)8a. In April 1985 Chevron sampled these wells and discovered contaminants in the ground water beneath their property. The Arizona Department of Health Services (ADHS) was notified of the contamination on August 20, 1985. (1)

Contaminants identified were: benzene, chloroform, 1,1-dichloroethane (1,1-DCA), 1,2-dichloroethane (1,2-DCA), 1,1-dichloroethene (1,1-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), ethylbenzene, tetrachloroethene (PCE), toluene, 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene (TCE), trichlorofluoromethane and M, O, P-xylene (Table 1). (1)

According to Chevron, this tank farm was used only for the storage of petroleum products. No chlorinated hydrocarbons such as DCA, DCE, TCA or TCE were used or stored at the site. (1)

Following the discovery of contaminated ground water beneath the Chevron facility, the West Van Buren WQARF Area was formed. The initial boundaries set for the WQARF Area were Indian School Road on the north, Lower Buckeye Road on the South, 35th Avenue on the east and 83rd Avenue on the west. After the initial Phase I investigation was completed, the boundaries of the Phase II study area were redefined to include only those areas of established ground water contamination (Figure 1). (1)

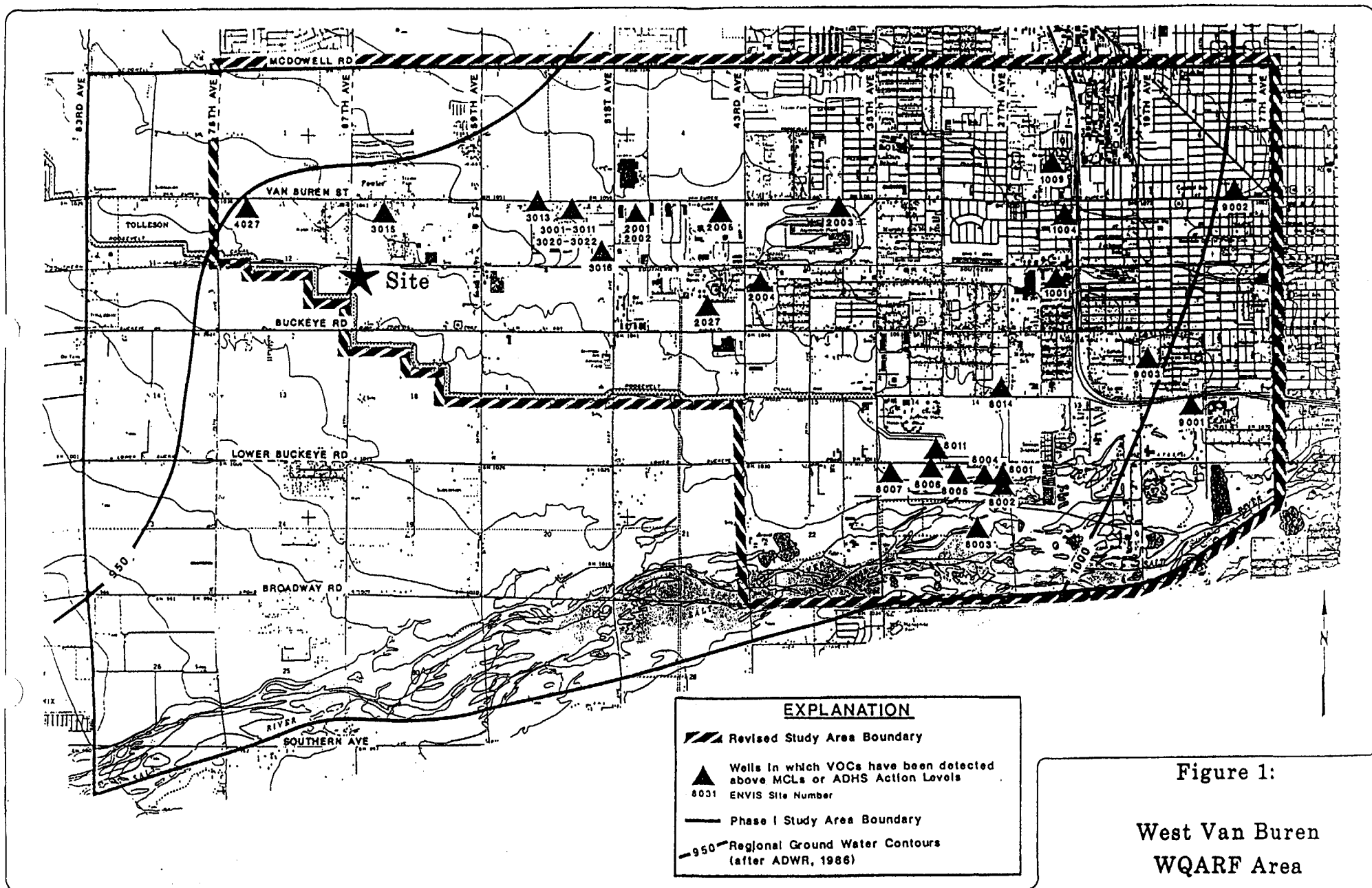


Figure 1:

West Van Buren  
WQARF Area

Adapted from Kleinfelder Task K-2



**TABLE 1**

Ground Water Contamination Detected beneath the Chevron Tank Farm

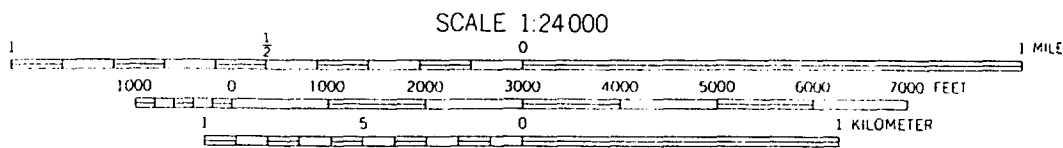
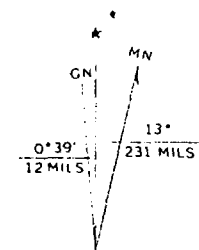
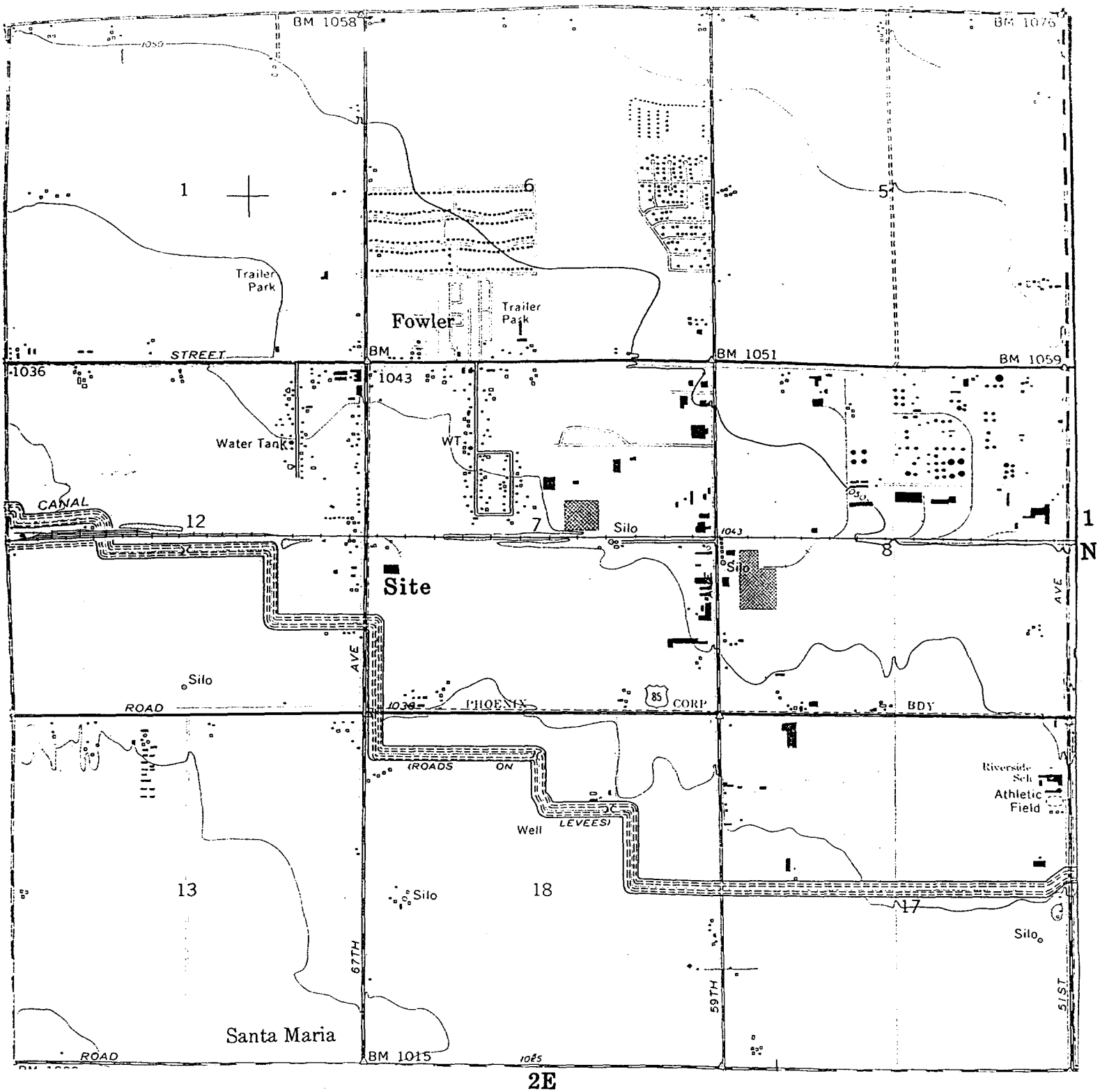
Chemical name	Range of Concentrations ug/l	Maximum Contaminant Level (MCL) or Arizona Health Based Guidance Levels (HBGLs) ug/l
1,1-DCA	1.2-9.0	None
1,2-DCA	.09-80.7	0.38
1,1-DCE	5.0-206	7.0
trans-1,2-DCE	ND-106	100
PCE	24.9->323	0.67
1,1,1-TCA	1.2-98.4	200
TCE	6.3-139	5.0
Benzene	2.8-240	5.0
Chloroform	ND-3.1	6.0
Ethylbenzene	ND-29.7	700
Toluene	ND-22.9	2000
M-xylene	ND-11.9	(total) 10,000
O,P-xylene	ND-22.2	(total) 10,000
ND= None Detected		
	Exceeds MCL or HBGL	

**2.0 SITE DESCRIPTION****2.1 Location**

The DPC site is located at 425 South 67th Avenue in Phoenix Arizona. The location can further be described as located within the NW/4 of the NW/4 of the SW/4 of Section 7, Township 1N, Range 2E, (A-1-2)7cbb (Figure 2). The 7.3 acre site is located within the boundaries of the West Van Buren WQARF Area.

**2.2 Site Description**

The site is bordered on three sides by vacant or agricultural land. Across 67th Ave., to the west of the facility, are residences. The land surrounding the site is primarily agricultural with some



CONTOUR INTERVAL 10 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Figure 2:

Site Location Map

residential and industrial development. Residential areas are located approximately 1,500 feet (ft) northwest of the property. Kinney Service Corporation is located approximately 1,400 ft southwest of the facility. Commercial and industrial properties are located approximately 1,100 ft south of the site. (3) Of the businesses located near DPC, only Steere Tank Lines, located at 304. S. 67th Ave, is listed on the RCRA database. Steere is listed as a transporter. (4)

Based on an ADEQ Hazardous Waste Unit inspection of the facility in July 1987, the single building on the property was described as an empty shell. Off the southeast corner of the property was a covered concrete pad with what appeared to be electrical equipment. East of the building were two above ground storage tanks of unknown capacity. The ADEQ inspector noted small plastic beads around the base of the tanks and assumed the tanks were used to store packing material. Along the north side of the building was a fenced area enclosing a small metal building. The building contained what appeared to be a compressor and other equipment related to a packing material delivery system. West of the small metal building was an area that contained several empty 55-gallon drums. There also appeared to be a sump in this area. The drum storage area and the small metal building are built on a concrete pad apparently designed to contain spills. There was a drain channel along the north edge of the concrete pad. This channel drained into a small 3 ft X 5 ft bermed area. Inside the bermed area is a floor drain. The bermed area drained into a 4 ft X 4 ft X 6 ft oil separator. The separator overflowed into a 15 ft deep, 4 inch PVC cased drywell. (5)

### **2.3 Operational History**

According to available information, the first business at this property was in 1973 when DPC occupied the site. DPC was located at this property until 1985. The property was vacant from 1985 to 1987. From August 1987 to September 1988, I-TEK Specialty Molding, Inc. occupied the property. From September 1988 to December 1989, Lambertson Industries occupied the property. From December 1989 to October 1991, the property remained vacant. In October 1991 the property was leased to Maidware Corporation. (6)

In 1973 Data Packaging of Arizona (DPA), a wholly-owned subsidiary of DPC, purchased the property from the Southern Pacific Railroad. In 1978, DPA was merged with DPC. In 1986 DPC changed its name to Costar Corporation. The property was sold to Estrella Business Park Limited Partners II (EBPLP) in July 1987. EBPLP defaulted on its note, and Costar reacquired the property at a trustee's sale. (6)

DPC business activity was injection molding and assembly of miscellaneous plastic components for computer software and

electronic equipment. Specifically, DPC manufactured and assembled molded plastics, primarily eight track tape cartridge assemblies, computer tape rolls and computer packs. I-TEK was a specialty plastics manufacturer. Lambertson Industries fabricated stainless steel kitchen equipment. Maidware business activity is the injection molding of plastics. (6)

## **2.4 Other Regulatory Involvement**

DPC is listed on the RCRA database as Data Packaging/Combined Resources, a non-regulated facility. The RCRA ID # for the site is AZD982035735. (4) I-TEK, Lambertson or Maidware are not listed on the RCRA database and no waste product information is currently available. (7) Maidware indicates they do not generate any hazardous wastes. (8)

ADEQ Underground Storage Tank Section (UST) has no record of a UST on site. (9)

A former employee of DPC indicated that from 1980 to 1985, he dumped approximately one gallon per day of waste solvent (TCE and acetone) into the oil separator. This separator was emptied several times but in 1985 the separator was filled with and covered with dirt. The former employee indicated the separator had not been emptied before burial. The employee also indicated that small amounts of solvents had been dumped along the south edge of the building. (10)

Based on this complaint filed with ADEQ, the Hazardous Waste Inspection Unit began an investigation of the property in July 1987.

ADEQ found soil staining around the bermed area on the north side of the building. ADEQ sampled soils at a depth of one ft below land surface (bls) near the bermed area and the analysis indicated 1,1,1-TCA, TCE and petroleum distillates present. (5)

As previously mentioned, DPC is in the West Van Buren WQARF Area and WQARF is overseeing remediation at the site.

## **3.0 INVESTIGATIVE EFFORTS**

### **3.1 Previous Sampling**

On September 15, 1988, Combined Resources, acting for EBPLP, began a Phase I investigation of the property. Three composite surficial soil samples were collected. Two sludge samples were also collected. One sludge sample was taken from the drain of the bermed area, another from an area near the railroad tracks where

an "oily" liquid had accumulated and the soil was heavily stained. In addition, one fluid sample was collected from ponded liquid located near the southeast corner of the building (Figure 3). (11)

All soil and sludge samples were analyzed using EPA Method 8010. 1,1,1-TCA was detected at the detection limit of 0.1 mg/kg in the sludge sample collected from the drain, DRS-1. (11)

Soil and sludge samples were also analyzed for volatile aromatics using EPA Method 8020. (11) Table 2 contains these results.

Soil and sludge samples were also analyzed for EP Toxicity metals. Only Arsenic was detected above the detection limit with a concentration of 0.04 mg/L in soil sample SS-1. This concentration is below the maximum concentration for EP Toxicity of 5.0 mg/L. (11)

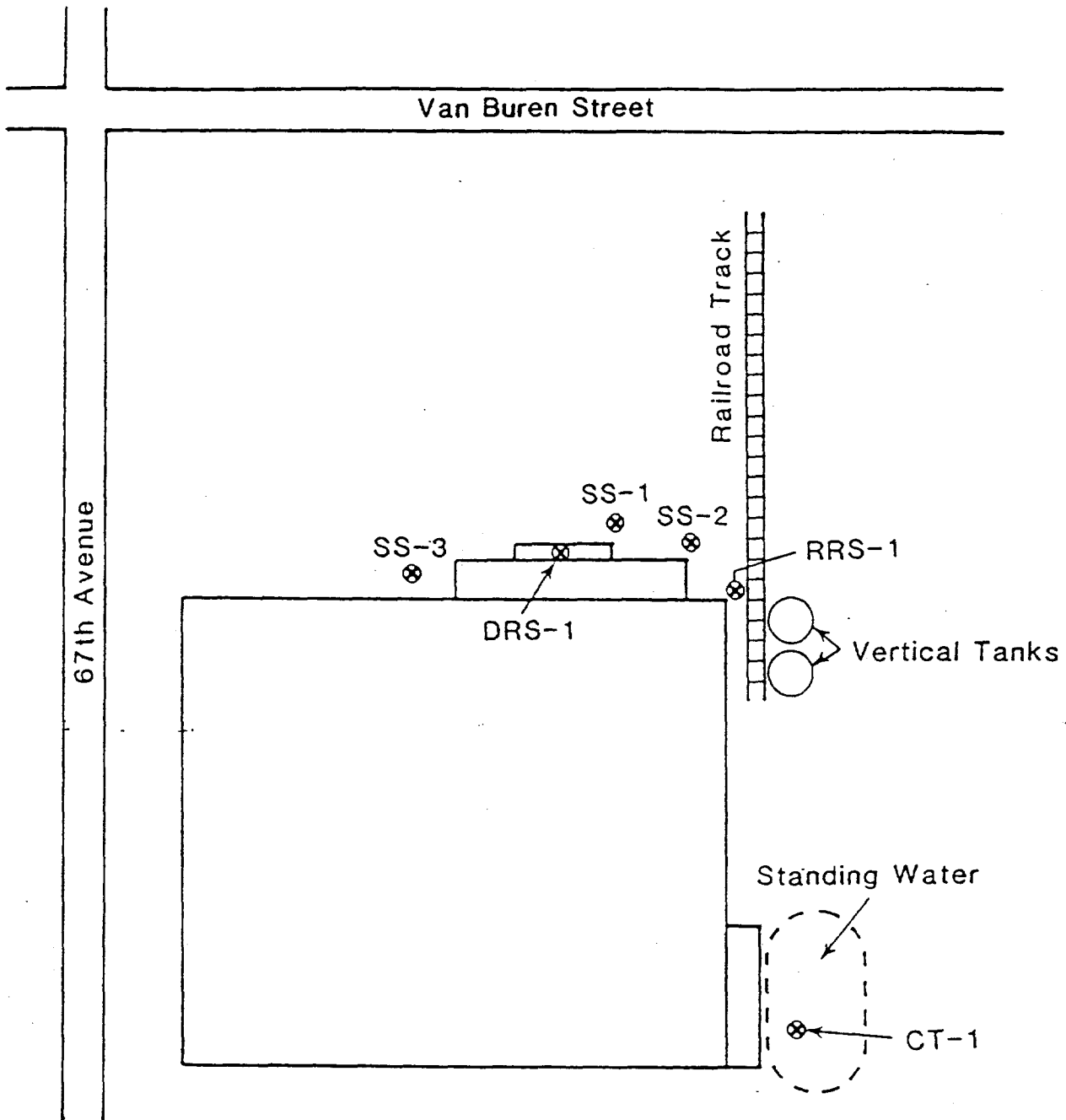
The liquid sample was analyzed for volatile organic compounds (VOCs) using EPA Method 601. No VOCs were detected above the detection limit of 0.2 ug/L. The liquid sample was also analyzed for EP Toxicity metals. Arsenic and barium were detected at 0.005 mg/L and 0.10 mg/L, respectively. (11) These reported concentrations are below the maximum concentration for EP Toxicity of 5.0 mg/L and 100 mg/L, respectively.

**TABLE 2**

September 1988 Phase I sample results for Data Packaging Site  
Concentrations in mg/kg

Sample	Toluene	Ethylbenzene	O,P-xylene	M-xylene
DRS-1	0.14	0.04	0.04	0.7
SS-1	0.5	<0.025	0.11	0.07
SS-2	0.04	<0.025	<0.025	<0.025
SS-3	0.05	<0.025	<0.025	<0.025
RRS-1	0.2	<0.025	0.08	0.06
Arizona Suggested Cleanup Levels	200	68	Total Xylenes 44	

Phase II sampling was conducted on October 13th and 16th 1988. Soil samples were collected from two compartments in the oil separator and from the bottom of the drywell (Figure 4). (12) Results are included as Table 3.



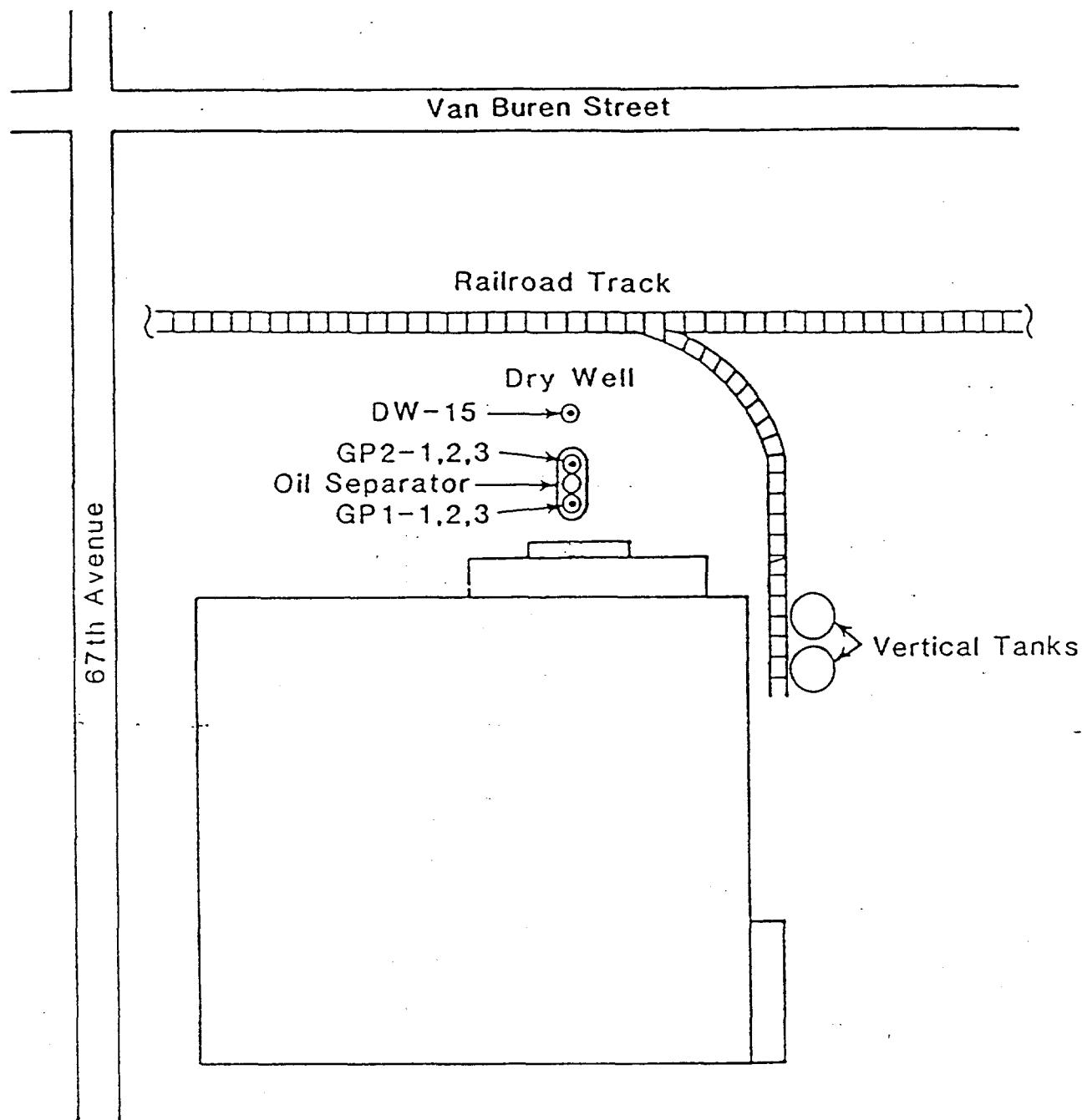
Not to Scale



Adapted from The Earth Technology Corp.

Figure 3:

September 1988 Phase I  
Sample Locations



Not to Scale

⊙ Location of Phase 2 Soil Samples



Figure 4:

October 1988 Phase II  
Sampling Locations

Adapted from The Earth Technology Corp.

**TABLE 3**  
**October 1988 Phase II Sample Results for Data Packaging**  
**Concentrations in mg/kg**

Sample #	Appx. Depth	Date	TPHC	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCE	PCE	TCE	1,1,1-TCA
GP1-1	10 inches	10-13-88	30	NA	NA	NA	NA	NA	NA	NA
GP1-2	40 inches	10-13-88	1,100	NA	NA	NA	NA	NA	NA	NA
GP1-3	62 inches	10-13-88	7,200	NA	NA	NA	NA	NA	NA	NA
GP2-1	18 inches	10-13-88	15	NA	NA	NA	NA	NA	NA	NA
GP2-2	42 inches	10-13-88	36	NA	NA	NA	NA	NA	NA	NA
GP2-3	63 inches	10-13-88	<5	NA	NA	NA	NA	NA	NA	NA
GP1-II-3	61 inches	10-16-88	NA	35	<1.0	13	<1.0	<1.0	<1.0	1,200
GP2-II-3	63 inches	10-16-88	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.4
DW-II-15	15 feet	10-16-88	NA	21	<0.1	<0.1	17	<0.1	<0.1	5
Arizona Draft Health Based Guidance Levels or *Suggested Cleanup Levels			*100	None	7.6	140	1,400	14	64	4,000
NA= Samples not analyzed for this parameter TPHC= Total Petroleum Hydrocarbons										

Analytical results indicated the presence of Total Petroleum Hydrocarbons (TPHC) to a depth of 63 inches in the oil separator. Concentrations are above the State suggested cleanup level of 100 mg/kg to a depth of 62 inches in the southern portion of the separator. Concentrations of 1,1-DCA, 1,1-DCE and 1,1,1,-TCA, were also detected in the oil separator. Concentrations of 1,1-DCA, 1,2-DCE and 1,2-DCE were detected in the sample from the drywell. (12)

In 1989 a Phase III investigation preformed by consultants for DPC entailed the excavation of the drain near the building, the oil separator and the drywell. At the time of the investigation, the consultants noted that the oil separator had no bottom and the underlying soil was discolored. A sample was taken from the soils below the separator and analytical results indicated the presence of 1,1-DCA, 1,2-DCA, 1,1-DCE, 1,2-DCE, 1,1,1-TCA, PCE and TCE. In February 1989, the area of the drywell and oil separator were excavated to a depth of approximately 22 ft. The excavation was approximately 35 ft in length and 15 ft in width. Discolored soil was present at a depth of 22 ft. Analytical results of the



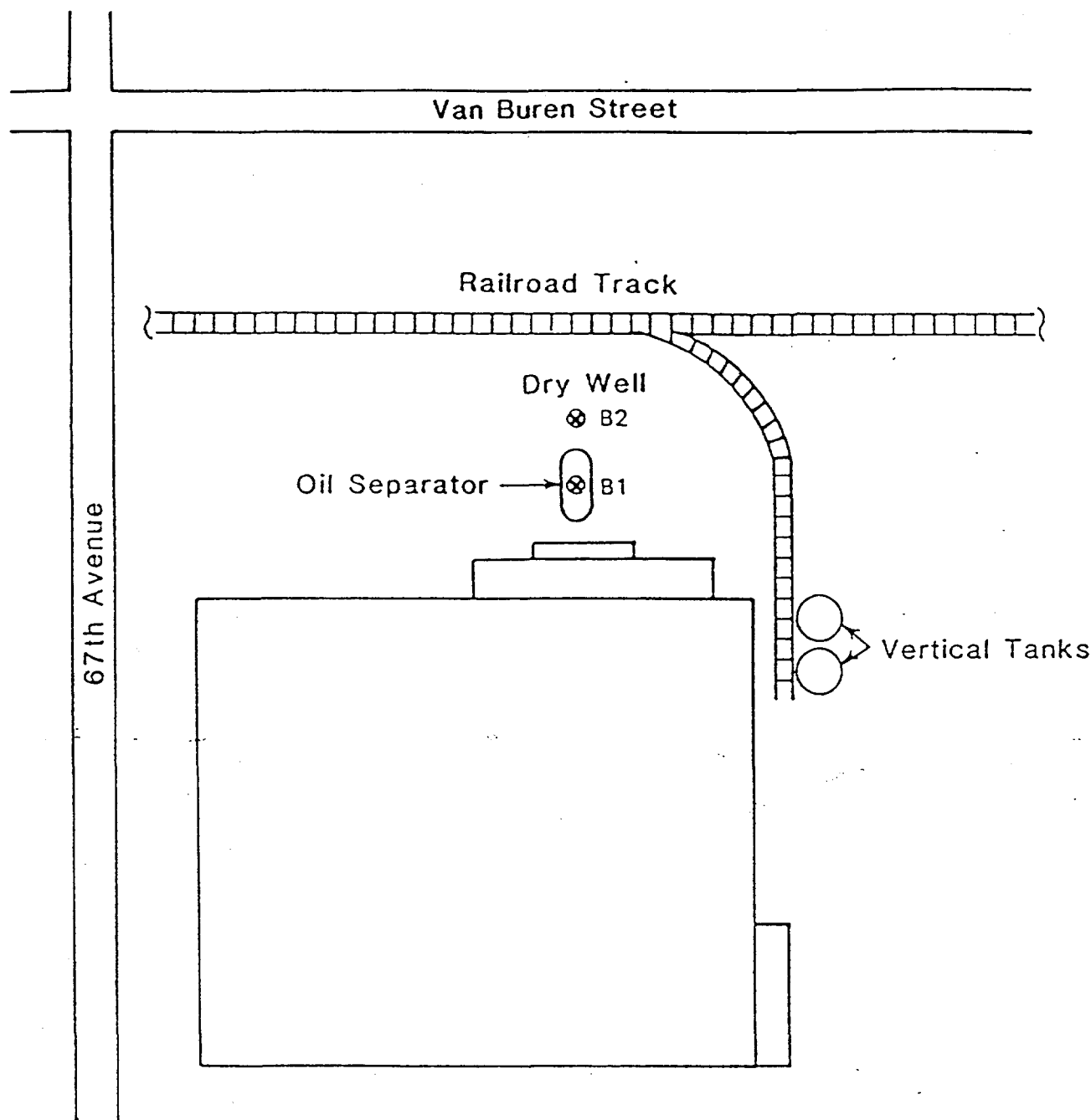
sample of the soil collected from the bottom of the excavation indicated the presence of TCE and PCE. (13)

A Phase IV investigation was initiated by sloping the existing vertical walls of the excavation and building a ramp to provide access for a drilling rig. In March 1989, a total of 12 soil samples were collected from two borings beneath the existing excavation to evaluate the vertical extent of contamination. One boring was located beneath the former oil separator location (B1) and the second was near the previous location of the drywell (B2) (Figure 5). The initial sampling interval was equivalent to approximately 25 ft bls. Soil samples were collected at five ft intervals. Borings were terminated at approximately 50 ft bls where a cobble size gravel layer was encountered and the auger was refused. (13) The sample analyses are included as Table 4.

**TABLE 4**  
March 1989 Phase IV Sample Results for Data Packaging  
Concentrations in mg/kg

Sample	Appx. Depth ft.	Date	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCE	PCE	TCE	1,1,1-TCA
B-1-1	25	3-1-89	0.18	<0.01	0.07	<0.01	0.33	1.20	4.20
B-1-2	30	3-1-89	0.15	<0.01	<0.01	<0.01	0.01	0.06	0.19
B-1-3	35	3-1-89	0.22	<0.01	<0.01	<0.01	<0.01	0.10	0.36
B-1-4	40	3-1-89	0.13	<0.01	<0.01	<0.01	<0.01	0.02	0.08
B-1-5	45	3-1-89	0.30	<0.01	0.03	<0.01	<0.01	0.14	0.52
B-1-6	50	3-1-89	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
B-2-1	25	3-1-89	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
B-2-2	30	3-1-89	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
B-2-3	35	3-1-89	0.09	<0.01	<0.01	<0.01	<0.01	0.02	<0.01
B-2-4	40	3-1-89	0.14	<0.01	<0.01	<0.01	<0.01	0.02	0.04
B-2-5	45	3-1-89	0.09	<0.01	<0.01	<0.01	<0.01	0.10	0.03
B-2-6	50	3-1-89	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
Arizona Draft Health Based Guidance Levels			None	7.6	140	1,400	14	64	4,000

The analytical results from the Phase IV soil sampling indicates that contamination existed down to a depth of approximately 45 ft bls in the area of the oil separator. Concentrations of 1,1,1-TCA was detected at a depth of approximately 50 ft bls in a sample from the top of the gravel layer near the former drywell. (13)



Not to Scale



Adapted from The Earth Technology Corp.

**Figure 5:**

**March 1989 Phase IV  
Sampling Locations**

Contamination that reached this gravel layer may have infiltrated vertically to a greater depth, or moved horizontally through the gravel layer. Therefore, the lateral and vertical extent of the contamination near the drywell was not defined.

To further investigate the drywell area, consultants for Costar drilled another boring four and one-half ft north of the previous boring in the area of the former drywell. Samples were collected at five ft intervals from 25 ft bls to a depth of approximately 59 ft bls. The gravel layer was encountered at approximately 50 ft bls. The samples were analyzed using EPA method 8010 and no VOCs were detected above the detection limits ranging from 0.01 to 0.35 mg/kg. (14)

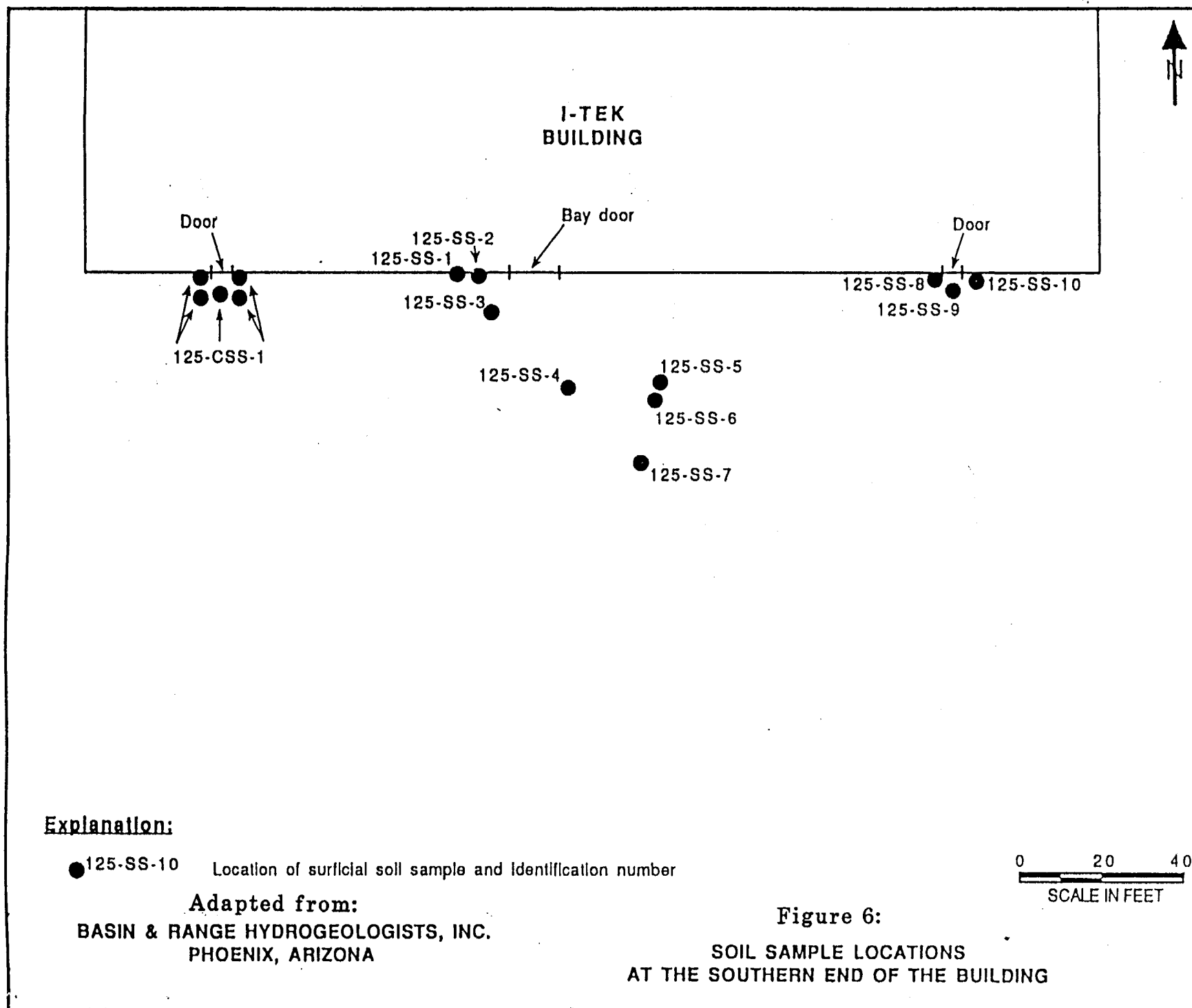
Samples collected from depths of five ft to 25 ft were also analyzed for TPHC using EPA Method 418.1. TPHC was detected in the sample collected at 10 ft at a concentration of 1,500 mg/kg. The concentration of TPHC detected in samples collected from five and 15 ft bls were 30 and 12 mg/kg, respectively. TPHC was not detected above the detection limit of 10 mg/kg in the samples collected from depths of 20 and 25 ft. bls (14)

As a result of this investigation, additional soil was excavated near the area of the former drywell. The purpose of this excavation was to remove soil contaminated with TPHC above 100 mg/kg. (14)

In September 1991, 15 surface soil samples were collected from the south side of the building (Figure 6). The samples were combined into two composites that were analyzed for TPHC and purgeable halocarbons using EPA methods 418.1 and 8010, respectively. At the time of the analyses, soil samples did not contain detectable concentrations of purgeable halocarbons. (15) However, due to the volatile nature of VOCs, soil samples to be analyzed for VOCs should not be composited. In addition, if the samples were collected from a depth of less than one ft, the VOCs may have volatilized into the atmosphere. The composited sample collected near the center bay door and the eastern door contained 17,000 mg/kg TPHC.

Surface soils were removed and ten discrete samples were collected from depths ranging from two to seven inches bls at the sample locations corresponding to the original composite. Six of the ten discrete samples were reported to contain TPHC concentrations that exceeded 100 mg/kg. The maximum concentration detected was 13,700 mg/kg TPHC. (15)

In November 1991, an additional eight inches of soil was removed from this area. Six additional discrete soil samples were collected from depths approximately 10 to 15 inches bls and



analyzed for TPHC. Analytical results indicate all samples contain TPHC at concentrations below 100 mg/kg. (16)

Approximately 575 cubic yards of excavated soil is being bioremediated on site. Soils are aerated in an approximately 80 ft X 140 ft lined, bermed and fenced treatment area. Results from composited sampling of the treatment area indicate no VOCs are present in the soils above laboratory detection limits. (16) From November 1991 to February 1992, TPHC concentrations in the soils in the treatment area appear to be declining from a high of approximately 8,900 mg/kg. (17)

In June 1990, the WQARF contractor for the State sampled seven wells near DPC in an area being considered for interim ground water remediation. (Figure 7). All wells showed elevated levels of either 1,1-DCA, 1,2-DCA, 1,1-DCE, 1,2-DCE, TCE, 1,1,1-TCA and chloroform (Table 5). Four wells were found to have contaminant levels exceeding MCLs or proposed MCLs (PMCLs). (18)

**TABLE 5**

June 1990 Well sampling data  
Concentrations in ug/L  
Data Packaging

Location	Depth ft.	Open Interval ft.	Owner	Chloro- form	1,1- DCA	1,2- DCA	1,1- DCE	1,2- DCE	PCE	TCE	1,1,1- TCA
(A-1-2)7ccc	700	135-682	RID #85	ND	ND	ND	1.0	1.1	37.1	0.8	0.4
(A-1-1)12dba	600	130-518	RID #84	0.5	0.6	0.4	11.7	6.5	150	11.1	0.9
(A-1-2)7bbb	790	80-776	RID #106	0.4	ND	0.3	6.1	1.1	34.0	6.8	ND
(A-1-2)8bbb	414	200-404	RID #107	0.5	ND	ND	1.9	0.2	3.9	5.1	ND
(A-1-2)17aad	430	NA	Riverside School	ND	ND	ND	ND	ND	ND	0.3	ND
(A-1-2)18aaa	500	NA	LDS	ND	0.9	ND	ND	ND	0.5	ND	ND
(A-1-2)7ccd	488	NA	LDS	ND	0.6	ND	ND	ND	0.6	ND	ND
EPA Maximum Contaminant Level (MCL) P= Proposed MCL * For Total Trihalomethanes NA = Not Available				*100	None	5	7	70	5P	5	200
Exceeds MCL or PMCL											

In December 1991 the WQARF contractor for the State installed four monitor wells located approximately 250 ft regionally upgradient of the DPC facility (Figure 8). Analytical results from ground water samples taken from these wells in January 1992 indicate significant contamination exists regionally upgradient of the DPC Facility. (19)

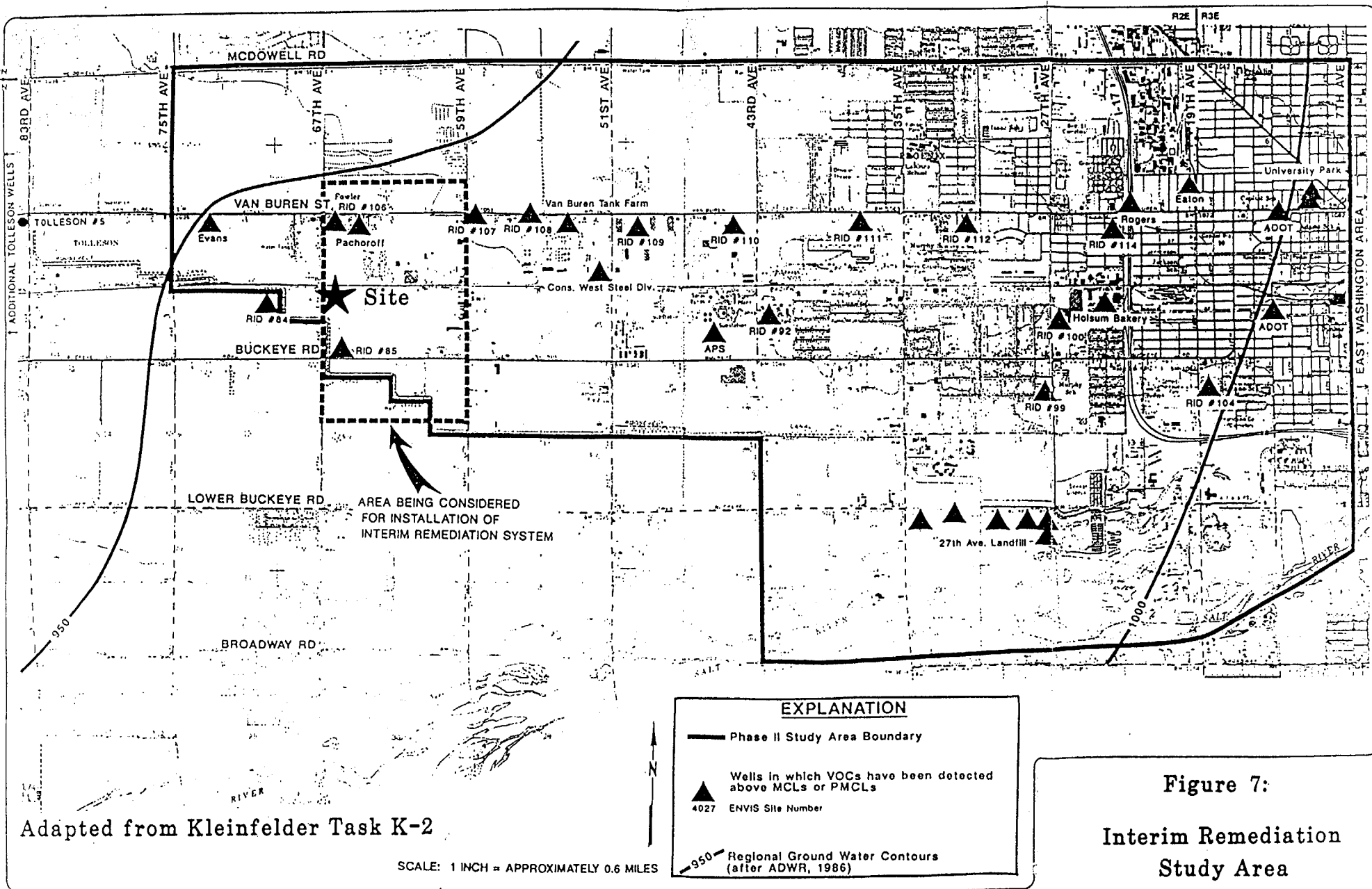
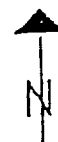
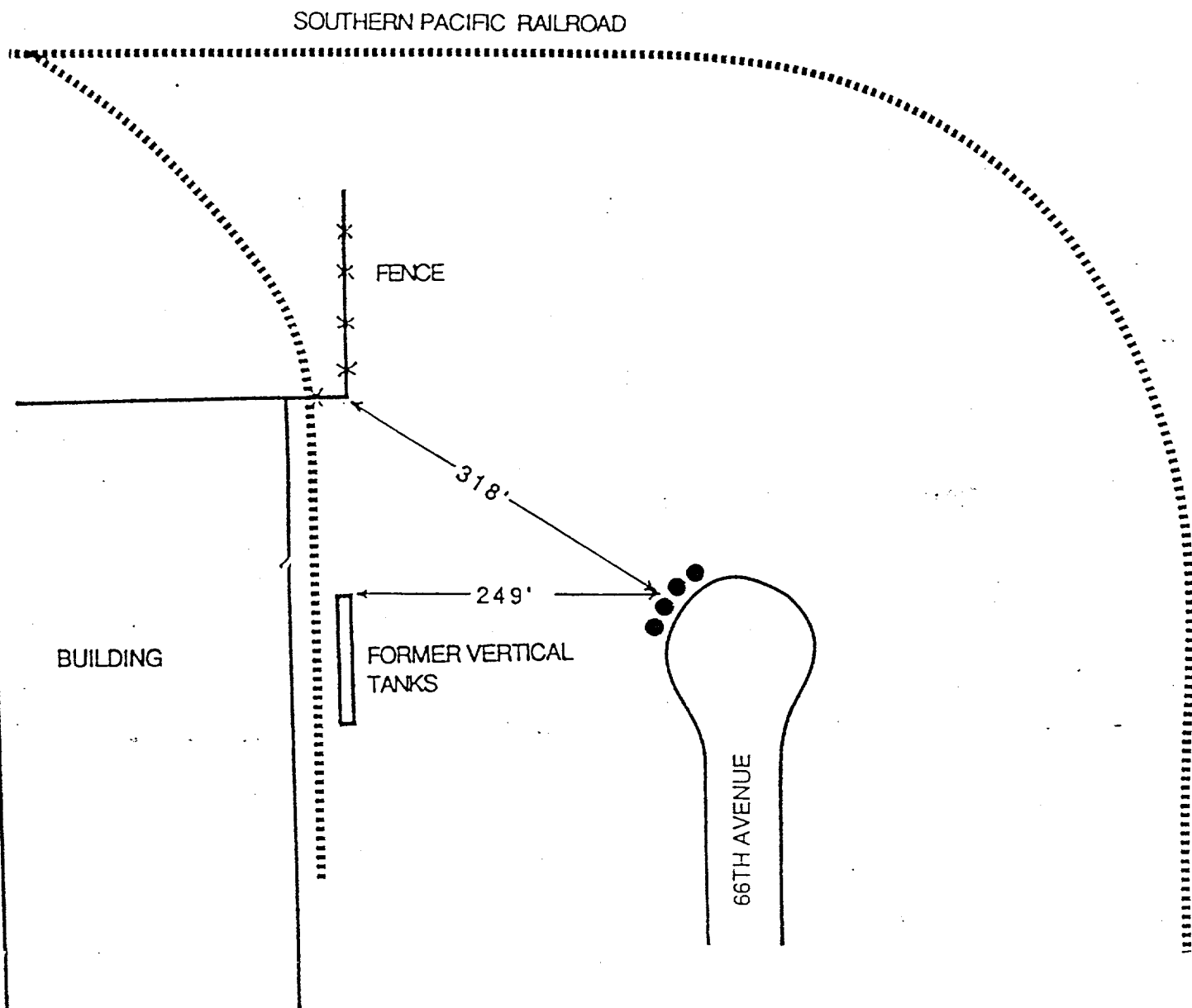


Figure 7:  
Interim Remediation  
Study Area



NOT TO SCALE

Adapted from:  
BASIN & RANGE HYDROGEOLOGISTS, INC.  
PHOENIX, ARIZONA

Figure 8:  
ADEQ Monitor Well Locations

Well construction information and sample results are included as Table 6.

However, when all existing ground water quality data is examined for the area around DPC, wells regionally upgradient of the site do not show the high levels of contamination detected in the monitor wells near DPC (Figure 9). Pumping of irrigation wells near the site may create local cones of depression and the monitor wells may in fact, due to this pumping, be downgradient of the facility. In 1989, the Roosevelt Irrigation District (RID) pumped approximately 23,000 acre-ft from wells located within one mile upgradient and cross-gradient from the site. (19) Further investigation of the hydrogeology near the site is warranted. The investigation should include water level measurements in the ADEQ monitor wells while the RID wells are pumping.

**TABLE 6**  
**Monitor Well Construction and**  
**January 1992 Sampling Data**  
**Concentrations in ug/L**  
**Data Packaging**

Location	Screened Depth ft.	Well #	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCE	PCE	1,1,1-TCA	TCE
(A-1-2)7cba	67-130	MW-1	2.5	2.1	45	22	550	1.6	37
(A-1-2)7cba	159-190	MW-3	1.2	0.6	15	7.8	120	0.3	11
(A-1-2)7cba	204-225	MW-4	0.8	0.2	2.8	2.7	41	ND	2.0
(A-1-2)7cba	250-320	MW-2	ND	ND	ND	ND	2.9	ND	ND
MCL or PMCL			None	5	7	70	5	200	5
			Exceeds MCL or PMCL						

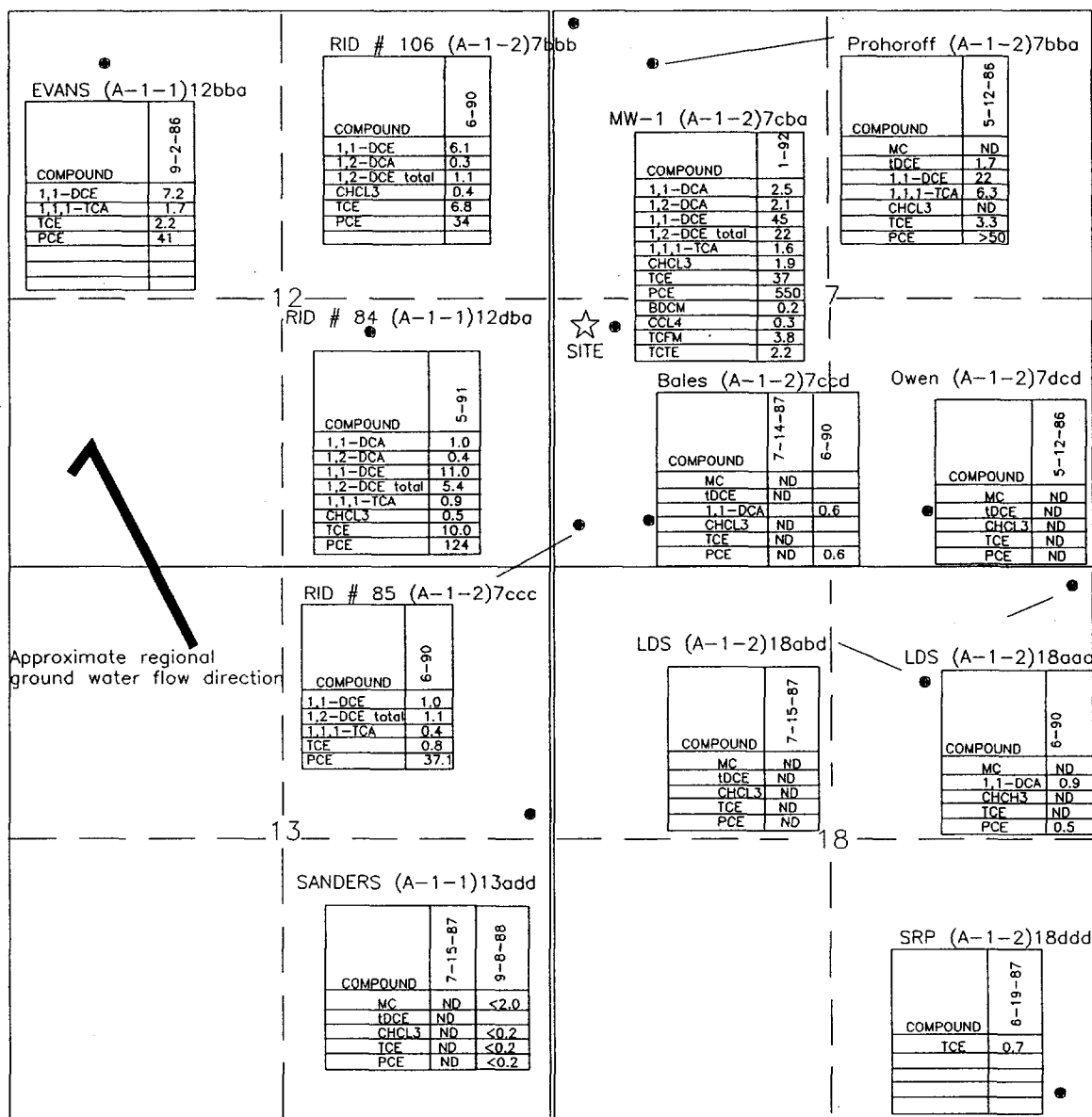
### 3.2 EPA Sampling

The requirements of the HRS published in the Federal Register in December 1990 were applied to DPC. EPA determined no additional sampling for volatile organic compounds is warranted at DPC. This decision was based on the relative threat to human targets associated with actual or potential releases from the facility. (20)



R 1 E

R 2 E



## ABBREVIATIONS

BDCM Bromodichloromethane  
 CCL4 Carbon tetrachloride  
 CHCL3 Chloroform  
 MC Methylene chloride  
 TCFM Trichlorofluoromethane  
 TCFE Trichlorotrifluoromethane  
 (See text for others)

FIGURE 9:  
Ground Water Quality Data

#### 4.0

#### HAZARD RANKING SYSTEM FACTORS

#### 4.1

#### Sources of Contamination

Acetate, butyrate, polyethylene, styrene and polystyrene were raw materials used in the DPC manufacturing process and were stored and used on site. No information was given about the specific location or the exact manner in which those chemicals were handled or stored. Costar indicated the records concerning the manufacturing processes from 1973-1985 were destroyed in a flood. A representative of Costar indicated that the two above ground storage tanks, previously located east of the main building, were used to store granulated polystyrene. The polystyrene was a primary process material in the manufacture of plastic molding. The capacity of each tank was approximately 175,000 gallons. The polystyrene was delivered from the storage tanks to the building directly through above ground piping. (6)

Costar also indicated that chemicals were used to clean and degrease the process machinery. Flammable materials and other cleaning compounds were stored in 5, 10 and 55-gallon containers. These containers were stored in the storage shed on the north side of the building. (6)

Trichloroethane was used to clean machinery parts and tools. Trichloroethane usage decreased from 20-30 gallons per month in 1982 to 5-6 gallons per month in 1985. (6)

Methylene chloride was also used as a cleaning agent. Methylene chloride was used to clean oil and other residue from magnetic rings before their insertion into plastic. Methylene chloride usage was estimated at 10 to 15 gallons per month during 1984-1985. (6)

Isopropyl alcohol and petroleum naphtha were also used as cleaning agents. Isopropyl alcohol usage decreased from 40-50 gallons per month in 1982 to 8-9 gallons per month in 1985. Petroleum naphtha usage decreased from 30-40 gallons per month in 1982 to 4-5 gallons per month in 1985. (6)

Hydraulic and lubricating oils were used at approximately 55-110 gallons per month. Methyl Ethyl Ketone and Acetone were also used in minor amounts. (6)

Approximate chemical usage amounts were provided by Costar based on accounts payable records for several years and conversations with past employees. (6)

Costar indicated used oils and solvents were placed in containers and removed by a contracted disposal firm. (6) ADEQ has no record of the Uniform Hazardous Waste Manifests from DPC for the years 1979 to 1985. (21) In 1991 Costar manifested 142 gallons of

hazardous waste off site. The waste included EPA hazardous waste numbers D001, D002, D035, F003 and F005. (22)

Costar also indicated that water and oil residue from clean-up operations in the factory were disposed of in the oil separator and drywell system. As previously mentioned, the oil separator overflowed into a drywell. Costar indicated this drywell was four feet wide and 40 feet deep and filled with crushed rock. (6) When consultants removed the drywell, they reported it was 15 feet deep and reported no gravel fill. (13) Costar indicated separated oil was removed from the separator by a waste company at intervals of one to two months. (6)

#### **4.2 Ground Water Pathway**

##### **4.2.1 Hydrogeologic Setting**

The DPC facility is located within the Basin and Range physiographic province. This province is characterized by north-to-northwest trending, fault bounded mountain ranges separated by deep and somewhat irregular alluvial basins. The Phoenix metropolitan area is located mostly within the Salt River Valley Basin (SRVB) and the DPC facility is situated within the western part of this basin. The western part of the valley is virtually surrounded by mountains that are composed of either granitic, metamorphic, volcanic or sedimentary rocks. The basin is bordered on the south by the Buckeye Hills, South Mountain and Sierra Estrella and on the west by the White Tank Mountains. The eastern margin of the basin is defined by a structural and topographic divide that extends from Papago Buttes north to Camelback Mountain and the Phoenix Mountains. The Hieroglyphic Mountains border the western SRVB to the north. (23)

Borings on the DPC property indicate the upper 50 ft of the unsaturated zone is composed of a mixture of sand and silt. (13) The hydraulic conductivity of this layer is estimated at  $10^{-4}$  centimeters/second (cm/sec). (24) This sand and silt layer is underlain by a cobble size gravel layer of unknown thickness.

The main source of ground water in the area are the alluvial deposits that underlie the valley floor. The deposits are heterogeneous, but have been stratigraphically differentiated based on correlative changes in lithology. The units, in descending order, are: the upper, middle, lower and the red unit. Because of complex facies relationships and mixed lithology within the units, they may be hydraulically interconnected to some degree. Underlying the alluvial deposits is a crystalline basement complex that consists of granites, schists, gneisses and volcanic rocks. The crystalline rocks form a mostly impermeable

barrier to the movement of ground water. The volcanic rocks are of minor importance as a source of ground water unless wells encounter vesicular or fractured zones. (23)

The primary source of ground water in the SRVB area is the upper unit that consists of unconsolidated to weakly consolidated deposits of gravel, sand, silt and clay. The depositional environment of the unit included flood plain, alluvial fan and open basin surface drainages. The principal sources of sediment for the upper unit were the drainages of the Salt, Gila and Agua Fria Rivers. The aquifer is usually unconfined and is approximately 350 feet thick beneath the DPC facility. Regional hydraulic conductivity values range from 180 to 1700 feet/day ( $6 \times 10^{-2}$  to  $6 \times 10^{-1}$  cm/sec). Wells completed in the unit are capable of producing from 1500 to 5500 gallons/minute. Ground water usually occurs under water table conditions and perched zones are possible in this unit in the SRVB. (23)

The middle fine-grained unit is middle to late tertiary deposits that consist of interbedded sand, silt, clay, silty sand, gravel and evaporites. The unit contains more than 40% sand and gravel throughout most of the basin but permeability may be affected by calcite cement. Fine grained horizons of less than 20% sand are localized, and the locations appear to be highly influenced by the large influx of sediment from the major drainages. However, the average percent sand and gravel may not always be a complete indicator of the hydraulic character of this unit because of interbedded coarse and fine material. Hydraulic conductivities are lower than those for the permeable upper unit, and values range from 20 to 100 feet/day ( $7 \times 10^{-3}$  to  $4 \times 10^{-2}$  cm/sec). The estimated thickness of this unit is approximately 300 feet beneath DPC. Within this portion of the aquifer, ground water may occur in unconfined or leaky confined conditions in the SRVB. (23)

According to Brown and Pool (1989), the lower aquifer unit has been differentiated further into a lower unit and an upper unit based on differences in consolidation, homogeneity, types of evaporite deposits and structure. The depositional environments of both parts of the unit include: playa, alluvial fan, fluvial and evaporite. The upper part of the lower unit is composed of sand, clay, mudstone, siltstone, gypsiferous mudstone, gypsum and gravel. Hydraulic conductivity values are from 3 to 24 feet/day ( $1 \times 10^{-3}$  to  $8 \times 10^{-3}$  cm/sec) in sediments ranging from about 10 to 75% sand and gravel. The lower portion of the lower unit consists of mudstone, siltstone, gypsiferous and anhydritic mudstone and siltstone, sand, gravel, conglomerate, halite, anhydrite and interbedded basalt. Observed hydraulic conductivity values for the lower part of the unit range from 6 to 9 feet/day ( $2 \times 10^{-3}$  cm/sec) in sediments ranging from 50 to 90% sand and gravel. These deposits are more consolidated and more

homogeneous in terms of clast type than the upper part of the lower unit. Within the lower unit of the aquifer, ground water may occur in unconfined or leaky confined conditions in the SRVB. Beneath the DPC facility the lower unit is more than 900 ft. thick. (23)

The red unit consists of reddish, sandstone, siltstone and well-cemented breccia or conglomerate which may contain granitic and rhyolitic debris. This unit was deposited before Basin and Range faulting and the formation of the sedimentary basins. Most of the unit has been tilted 20 to 45 degrees by the Basin and Range faulting and earlier structural events. This unit is not known to be a significant source of ground water in the west SRVB area. (23)

Most of the municipal and irrigation water supply wells in the SRVB are perforated in both the upper unit and the upper portion of the middle. (1)

Under predevelopment conditions, before 1940, the direction of ground water flow in the area was to the west, approximately parallel to the Salt River drainage. By 1968, the regional ground water flow had shifted to the northwest in response to basin wide pumping. (25) Recharge from flood flows in the Salt River have not affected the regional flow directions in surrounding areas, but may have caused local increases in ground water elevations immediately adjacent to the channel. Because of seasonal and areal variations in pumping or recharge, the direction and gradient of ground water flow varies throughout the year and from site to site within the West Van Buren Area. (1) The depth to water near the facility is approximately 80 ft bls. (19)

The calculated net precipitation for November through April is -12.63 inches. (26)

#### **4.2.2 Ground Water Targets**

Ground water from wells within a four mile radius of DPC is used for the following purposes: public drinking water, domestic, irrigation and monitoring in accordance with various environmental programs. (27)

The City of Phoenix (COP) has one well within two to three miles of the facility and one well within three to four miles. COP has 95 wells capable of providing ground water to a 1989 population of 1,007,670. Over the last six years, the COP has pumped an average of 44,141 acre feet of ground water or 16% of the total supply. Therefore, each well serves approximately 1,723 people. (28)

The City of Tolleson (COT) has three wells within two to three miles and four wells within three to four miles of the site. The

nearest public supply well to the DPC facility is the COT # 5 well located approximately two miles west of the site (A-1-1)10aad. Analytical results of a ground water sample from this well in November 1989 indicated trichlorotrifluoroethane (Freon 113) was present at a concentration of 0.9 ug/L. (19) This concentration is well below the State HBGL. Over the last five years, the COT has pumped an average of 1,184 acre feet from seven wells to provide 100% of the supply for a 1989 population of 4,475. Therefore each well in the system serves approximately 746 people. (29)

Level I concentrations of VOCs have been detected in regionally downgradient wells listed as domestic (Evans[A-1-1]12bba and Prohoroff[A-1-2]7baa). Level II concentrations have been detected in a domestic well that is regionally upgradient, Bales (A-1-2)7ccd. Currently, available information indicates these wells are inactive. (1) There are also approximately 34 domestic wells that are within four miles downgradient from the facility. (27) The status of these domestic wells is unknown.

#### **4.2.3 Ground Water Pathway Conclusion**

There is no documented release of contaminants into the ground water that can be attributed to DPC. Because of lack of containment features, documentation regarding the type and amounts of hazardous materials used and disposed at the site, disposal practices and moderate depth to ground water, there is potential for a release of contaminants from DPC to the ground water. Although significant contamination has been detected in monitor wells that are within 250 ft but regionally upgradient of the site, pumping of the irrigation wells near the site or recharge in the area may affect localized ground water flow directions and gradients. As a result these monitor wells may not always be upgradient of the facility. Further investigation of the hydrogeology near the site is warranted.

#### **4.3 Surface Water Pathway**

##### **4.3.1 Hydrologic Setting**

The potential for a release from DPC to the surface water is low. The nearest surface water to the DPC facility is the Roosevelt canal, located 800 ft southwest of the facility. (30) This canal is used to deliver irrigation water to an area southwest of the Phoenix metropolitan area. (31) An elevated levee protects the canal from surface runoff. (30) The slope in the area of the facility is approximately 18 ft per mile. (30) Runoff from the site would flow southerly toward the Salt River, approximately three miles to the south. (30) The facility is located between

the 100 year flood plain and the 500 year flood plain. (32) The Salt River is an ephemeral waterway, flowing only during periods of heavy rainfall and subsequent upstream runoff.

The two year, 24-hour rainfall potential for the Phoenix area is approximately 2.25 inches. (33)

#### **4.3.2 Surface Water Targets**

There are no intakes for drinking water from the Roosevelt canal downstream from the site. The Salt River is not utilized as a source for drinking water. (34)

There are no wetlands or other sensitive environments downstream on the Salt River within 15 miles of the site. (35)

#### **4.3.3 Surface Water Pathway Conclusion**

Because of the lack of potential targets from the surface water pathway, this pathway will not be evaluated during this SI.

#### **4.4 Soil Exposure and Air Pathway**

##### **4.4.1 Physical Conditions**

The surface soil deposits in the area of DPC have been classified as the Gilman-Estrella-Avondale Association by the U.S. Department of Agriculture Soil Conservation Service. This association consists of deep, well-drained soils formed in recent alluvium. Slopes are usually less than one percent. The alluvium is derived from andesite, basalt, schist, rhyolite and granite-gneiss. Specifically, the site is located on the Glenbar clay loam. In a representative profile the surface layer is a brown clay loam approximately 15 inches thick. The underlying material is light-brown and pale-brown clay loam and silty clay loam which extends to a depth of 60 inches. The soil is moderately alkaline and is strongly effervescent throughout. Permeability of the soil is rated as moderately slow at 0.6 to 2.0 inches per hour. Runoff is slow and the erosion hazard is slight. (36)

Soil exposure and air particulate pathways are possible. There is documented soil contamination on the DPC site. In this arid climate it is likely some of the contaminated surface soils on site would become airborne as windblown dust. DPC has a permit from the Maricopa County Department of Health Services for the soil treatment area. (37) The excavated soil and soil treatment areas are fenced with chain-link and a locking gate. (3)

The nearest, regularly occupied building is located just across 67 Ave., west of DPC. (3) This residence would be approximately 300 ft from the contaminated soils treatment area. (3,30)

There are commercial agriculture operations within one-half mile of the site. (3) There are no major or designated recreation areas within one-half mile of DPC. (3) Within a four mile radius of the site, there are no Federal or State endangered species, critical habitats, wetlands or wildlife areas. (35)

#### **4.4.2 Soil and Air Targets**

The estimated population of the surrounding area is: on site employees 35, (8) zero to 1/4 mile=17, 1/4 to 1/2 mile=28, 1/2 to one mile=1,339, one to two miles=7,038, two to three miles=28,258 and three to four miles=62,268. (38)

#### **4.4.3 Soil Exposure and Air Pathway Conclusion**

There are no documented releases to the air from DPC. In this arid climate it is likely some of the contaminated surface soils on site could become airborne as windblown dust. There is documented soil contamination on the DPC site. The potential for on-site soil exposure does exist on the property.

### **5.0 EMERGENCY RESPONSE CONSIDERATIONS**

The National contingency Plan [ 40 CFR 300.415 (b) (2) ] authorizes the EPA to consider emergency response actions at those sites that pose an imminent threat to human health or the environment. A referral to Region IX's Emergency Response Section does not appear to be necessary as there is no imminent threat to human health or the environment.

### **6.0 OTHER CONSIDERATIONS**

No other considerations are relevant to the DPC site.

### **7.0 SUMMARY**

In 1984, Chevron U.S.A. Inc. installed several monitoring wells at a petroleum tank farm located at 5110 West Madison, Phoenix, AZ, (A-1-2)8a. In April 1985 Chevron sampled these wells and discovered contaminants in the ground water beneath their property. The Arizona Department of Health Services (ADHS) was notified of the contamination on August 20, 1985.



Contaminants identified were: benzene, chloroform, 1,1-dichloroethane (1,1-DCA), 1,2-dichloroethane (1,2-DCA), 1,1-dichloroethene (1,1-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), ethylbenzene, tetrachloroethene (PCE), toluene, 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene (TCE), trichlorofluoromethane and M, O, P-xylene.

According to Chevron, this tank farm was used only for the storage of petroleum products. No chlorinated hydrocarbons such as DCA, DCE, TCA or TCE were used or stored at the site. Following the discovery of contaminated ground water beneath the Chevron facility the West Van Buren WQARF Area was formed.

In 1973 Data Packaging of Arizona (DPA), a wholly-owned subsidiary of DPC, purchased the property from the Southern Pacific Railroad. In 1978, DPA was merged with DPC. In 1986 DPC changed its name to Costar Corporation. The property was sold to Estrella Business Park Limited Partners II (EBPLP) in July 1987. EBPLP defaulted on its note, and Costar reacquired the property at a trustee's sale.

DPC business activity was injection molding and assembly of miscellaneous plastic components for computer software and electronic equipment. Specifically, DPC manufactured and assembled molded plastics, primarily eight track tape cartridge assemblies, computer tape rolls and computer packs.

A former employee of DPC indicated that from 1980 to 1985, he dumped approximately one gallon per day of waste solvent (TCE and Acetone) into an oil separator. This oil separator overflowed into a drywell that was constructed of four inch PVC inserted into a gravel filled, 15 to 40 ft deep hole. This separator was emptied several times but in 1985 the separator was filled with and covered with dirt. The former employee indicated the separator had not been emptied before burial. The employee also indicated that small amounts of solvents had been dumped along the south edge of the building.

1,1-DCA, 1,2-DCE and 1,2-DCE were detected in soil samples from the area around the drywell. 1,1,1-TCA was detected in a soil sample from a depth of 50 ft below land surface (bls) in the drywell area. A sample was taken from the soils below the separator and indicated the presence of 1,1-DCA, 1,2-DCA, 1,1-DCE, 1,2-DCE, 1,1,1-TCA, PCE and TCE. Total petroleum hydrocarbons (TPHC) were detected near the old drywell in the 10 ft bls sample at 1,500 mg/kg. The concentration of TPHC detected in samples collected from five and 15 ft were 30 and 12 mg/kg, respectively. TPHC was not detected above the detection limit of 10 mg/kg in the samples from depths of 20 and 25 ft bls.

In 1991, on the south side of the building, near the center bay door, surficial soils were found to have concentrations of TPHC as high as 17,000 mg/kg. Soil was removed to a depth of 10 to 15

inches bls before concentrations of less than 100 mg/kg TPHC were detected. Approximately 575 cubic yards of excavated soil is being bioremediated on site.

Costar indicated that chemicals were used to clean and degrease the process machinery. Flammable materials and other cleaning compounds were stored in 5, 10 and 55-gallon containers. These containers were stored in the storage shed on the north side of the building.

Trichloroethane, methylene chloride, isopropyl alcohol and petroleum naphtha were used as cleaning agents. Hydraulic and lubricating oils were used at approximately 55-110 gallons per month. Methyl Ethyl Ketone and Acetone were also used in minor amounts.

Costar indicated used oils and solvents were placed in containers and removed by a contracted disposal firm. ADEQ has no record of the Uniform Hazardous Waste Manifests from DPC for the years 1979 to 1985.

Borings on the DPC property indicate the upper 50 ft of the unsaturated zone is composed of a mixture of sand and silt. The hydraulic conductivity of this layer is estimated at  $10^{-4}$  centimeters/second (cm/sec). This sand and silt layer is underlain by a cobble size gravel layer of unknown thickness.

The main source of ground water in the area are the alluvial deposits that underlie the valley floor. The deposits are heterogeneous, but have been stratigraphically differentiated based on correlative changes in lithology. The units, in descending order, are: the upper, middle, lower and the red unit. Because of complex facies relationships and mixed lithology within the units, they may be hydraulically interconnected to some degree. Underlying the alluvial deposits is a crystalline basement complex that consists of granites, schists, gneisses and volcanic rocks. The crystalline rocks form a mostly impermeable barrier to the movement of ground water. The volcanic rocks are of minor importance as a source of ground water unless wells encounter vesicular or fractured zones.

The primary source of ground water in the West Van Buren WQARF area is the upper unit that consists of unconsolidated to weakly consolidated deposits of gravel, sand, silt and clay. The depositional environment of the unit included flood plain, alluvial fan and open basin surface drainages. The principal sources of sediment for the upper unit were the drainages of the Salt, Gila and Agua Fria Rivers. The aquifer is usually unconfined and is approximately 350 feet thick beneath the DPC facility. Regional hydraulic conductivity values range from 180 to 1700 feet/day ( $6 \times 10^{-2}$  to  $6 \times 10^{-1}$  cm/sec). Wells completed in the unit are capable of producing from 1500 to 5500 gallons/minute.

Ground water usually occurs under water table conditions and perched zones are possible in this unit in the SRVB.

Under predevelopment conditions, before 1940, the direction of ground water flow in the area was to the west, approximately parallel to the Salt River drainage. By 1968, in response to pumping, the regional ground water flow had shifted to the northwest. Recharge from flood flows in the Salt River have not affected the regional flow directions in surrounding areas, but may have caused local increases in ground water elevations immediately adjacent to the channel. Because of seasonal and areal variations in pumping or recharge, the direction and gradient of ground water flow varies throughout the year and from site to site within the West Van Buren Area. The depth to water near the facility is approximately 80 ft bls.

In June 1990 the WQARF contractor for the state sampled seven wells near DPC in an area being considered for interim ground water remediation. All wells showed elevated levels of either 1,1-DCA, 1,2-DCA, 1,1-DCE, 1,2-DCE, TCE, 1,1,1-TCA and chloroform. Four wells have contaminant levels exceeding MCLs or PMCLs.

In December 1991 the WQARF contractor installed four monitor wells approximately 250 ft upgradient of the DPC facility. Results from ground water samples taken in January 1992 indicate significant contamination exists regionally upgradient of the DPC Facility. Chloroform, 1,1-DCA, 1,2-DCA, 1,1-DCE, 1,2-DCE, DCE, TCE and 1,1,1-TCA were detected. However, when all existing ground water quality data is examined for the area around DPC, wells regionally upgradient of the site do not show the high levels of contamination detected in the monitor wells near DPC. Local pumping effects may alter the ground water gradients and flow directions near the site. Further investigation of the hydrogeology near the site is warranted. The investigation should include water level measurements in the ADEQ monitor wells while the Roosevelt Irrigation District wells are pumping.

The City of Phoenix (COP) has one well within two to three miles of the facility and one well within three to four miles. COP has 94 wells capable of providing ground water to a 1989 population of 1,007,670. Over the last six years, the COP has pumped an average of 44,141 acre feet or 16% of the total supply. Therefore, each well serves approximately 1,700 people.

The City of Tolleson (COT) has three wells within two to three miles and four wells within three to four miles of the site. The nearest well to the DPC site is a COT well approximately two miles from the site. Over the last five years, the COT has pumped an average of 1,184 acre feet from seven wells and 100% of the supply for a 1989 population of 4,475. Therefore each well in the system serves approximately 746 people.

Level I concentrations of VOCs have been detected in downgradient wells listed as domestic (Evans[A-1-1]12bba and Prohoroff[A-1-2]7baa). Level II concentrations have been detected in a domestic well that is regionally upgradient, Bales (A-1-2)7ccd. Currently, available information indicates these wells are inactive. There are also approximately 34 domestic wells that could be within four miles downgradient from the facility. The status of these domestic wells is unknown.

There is no documented release of contaminants into the ground water that can be attributed to DPC. Because of lack of containment features, documentation regarding the type and amounts of hazardous materials stored and disposed at the site, disposal practices and moderate depth to ground water, there is potential for a release of contaminants from DPC to the ground water. Although significant contamination has been detected in monitor wells that are regionally upgradient of the site, pumping of the irrigation wells near the site may effect localized ground water flow directions.

The potential for a release from DPC to the surface water is low. The nearest surface water to the DPC facility is the Roosevelt canal, located 800 ft southwest of the facility. This canal is used to deliver irrigation water to the southwest of the Phoenix metropolitan area. An elevated levee protects the canal from surface runoff.

Runoff from the site would flow southerly toward the Salt River, approximately three miles to the south. The facility is located between the 100 year flood plain and the 500 year flood plain. The Salt River is an ephemeral waterway, flowing only during periods of heavy rainfall and subsequent upstream runoff.

There are no intakes for drinking water uses from the Roosevelt canal downstream from the site. There are no drinking water uses from the Salt River. There are no wetlands or other sensitive environments downstream on the Salt River within 15 miles of the site.

There are no documented releases to the air from DPC. In this arid climate it is likely some of the contaminated surface soils on site would become airborne as windblown dust. There is documented soil contamination on the DPC property and the potential for on-site soil exposure does exist on the property.

The pertinent Hazard Ranking System factors for the site are:

1. Moderate depth to ground water with contamination detected down to 50 feet.
2. Moderate toxicity of contaminants.
3. Unknown waste quantity.
4. Low ground water use for municipal supplies in the area.

**8.0****ADEQ ACTIONS**

A copy of this report will be sent to the ADEQ Remedial Projects Section, West Van Buren project manager for consideration and inclusion in the WQARF files.

**9.0****ADEQ MANAGEMENT REVIEW/CONCURRENCE**

Judy Heywood  
Signature

7/6/92  
Date

Lowell Carter  
Signature

7/22/92  
Date

## 10.0

## EPA RECOMMENDATION

	<u>Initial</u>	<u>Date</u>
No further remedial Action Planned Under CERCLA	<u>fn</u>	<u>9-14-92</u>
Higher Priority for Further Site Assessment	<u>          </u>	<u>          </u>
Lower Priority for Further Site Assessment	<u>          </u>	<u>          </u>
Defer to Other Authority (e.g., RCRA, TSCA)	<u>          </u>	<u>          </u>

## Notes:

No further U.S. EPA Superfund involvement is warranted at this site due to the low ground water use for municipal supplies in this area.

Jan Nelson  
9-14-92

## 11.0

## REFERENCES

1. Kleinfelder, Inc., Phase I Report West Van Buren Area Phoenix, Arizona Task Assignment K-2, July 1989.
2. Preliminary Assessment of Data Packaging Corporation, prepared by Douglas C. Jamison, ADEQ, August 14, 1990.
3. Goodwin, S.D., ADEQ, field notes from Site Inspection of Data Packaging Corporation, April 24, 1992.
4. Resource Conservation and Recovery Act database, 11-1-91.
5. ADEQ, Hazardous Waste Inspection Report, Combined Resources, July 21, 1987.
6. ADEQ Questionnaire to Costar Corporation, January 23, 1992.
7. Resource Conservation and Recovery Act database, 5-11-92.
8. Scott D. Goodwin, ADEQ and Barb Gullett, Maidware Products of Phoenix, Inc., telephone conversation, May 12, 1991.
9. Scott D. Goodwin, ADEQ and Barbara Herron, Research and Statistical Analyst II, ADEQ Underground Storage Tank Section, telephone conversation, January 16, 1992.
10. ADEQ Hazardous Waste Compliance Unit, Confidential file, Combined Resources/Data Packaging.
11. The Earth Technology Corporation, Analytical results for Fluid and Soil Sampling Conducted at 425 South 67th Avenue, Phoenix, Arizona, November 9, 1988.
12. The Earth Technology Corporation, Analytical Results for Phase II Soil Sampling Conducted at 425 South 67th Avenue, Phoenix, Arizona, December 19, 1988.
13. The Earth Technology Corporation, Results of the Phase IV Investigation at the Former I-Tek Specialty Molding Facility, Phoenix, Arizona, April 17, 1989.
14. Basin and Range Hydrogeologists, Inc., Environmental Investigation Costar Corporation 425 South 67th Avenue Phoenix, Arizona, May 10, 1991.
15. Basin and Range Hydrogeologists, Inc., Phase I Environmental Assessment Report Costar Corporation 425 South 67th Avenue Phoenix, Arizona, September 6, 1991.
16. Basin and Range Hydrogeologists, Inc., Environmental Investigation Costar Corporation 425 South 67th Avenue

Phoenix, Arizona, Monthly report December 6, 1991.

17. Basin and Range Hydrogeologists, Inc., Environmental Investigation Costar Corporation 425 South 67th Avenue Phoenix, Arizona, Monthly reports December, 1991-March, 1992.
18. Kleinfelder, Inc., Workplan for Phase I Interim Remediation, West Van Buren Area Phoenix, Arizona Task Assignment K-2, August 1990.
19. Kleinfelder, Inc., Phase II Technical Memorandum, Task Assignment K-2, West Van Buren Area, Phoenix, Arizona, May 1992.
20. Goodwin, S.D., ADEQ and Lisa Nelson, Arizona PA/SI Grant Manager, Site Evaluation Section, U.S. EPA, conversation, March 18, 1992.
21. ADEQ Hazardous Waste Compliance Unit files.
22. Uniform Hazardous Waste Manifest 1991, Costar Corporation.
23. Brown, James G., and Pool, D.R., Hydrogeology of the Western Part of the Salt River Valley Area, Maricopa County, Arizona, U.S.G.S. Water Resources Investigations report 88-4202, Tucson, Arizona, 1989.
24. Bouwer, H., Groundwater Hydrology, New York: McGraw-Hill Book Company, 1978.
25. Smith, S.A., Small, G.G., Phillips, T.S., Clester, M., Water Quality In the Salt River Project A Preliminary Report, Salt River Project Water Resource Operations, Groundwater Planning Division, 1982.
26. Climatic Atlas of the United States, U.S. Department of Commerce, Environmental Science Services Administration, Environmental Data Service, June 1968.
27. Arizona Department of Water Resources, Well Report, 1991.
28. Arizona Department of Water Resources, Phoenix Active Management Area Division, City of Phoenix, Arizona File.
29. Arizona Department of Water Resources, Phoenix Active Management Area Division, City of Tolleson, Arizona File.
30. United States Geological Survey, Fowler, Ariz, 7 1/2 Minute Topographic Map, 1952 (Photorevised 1982).
31. Stan Ashby, Roosevelt Irrigation District, and Ana Vargas, ADEQ, Office of Waste Programs Site Discovery and Hazard



Evaluation Unit, telephone conversation, January 13, 1989.

32. Flood Insurance Rate Map, Federal Emergency Management Agency Map # 04013C2105 D, Maricopa County, Arizona, Panel 2105, effective date April 15, 1988.
33. Rainfall Frequency Atlas of the United States, Technical Paper No. 40, U.S. Government Printing Office, Washington D.C., 1983.
34. Salt River Project, SRP Well Water Quality Sampling Test Results 1988/1989, Map Version, April 1990.
35. Palmer, Bruce K., Nongame Habitat Specialist, Arizona game and Fish Department, to Michael Bellott, ADEQ, Office of Waste Programs, Environmental Program Supervisor, letter, September 14, 1989.
36. Soil Survey of Maricopa County, Arizona, Central Part, U.S. Department of Agriculture, Soil Conservation Service, 1977.
37. Moore, Tracy S., Basin and Range Hydrogeologists, Inc., to Harry Chiu, Maricopa County Department of Health Services, Bureau of Air Pollution Control, letter, January 10, 1992.
38. Arizona State Data Center, Population Statistics Unit, Arizona Department of economic Security, 1990 Census Data, March 1991.

## SECTION II

APPENDIX A  
Contact Log and Reports

## CONTACT LOG

Facility Name: Data Packaging  
EPA ID# : AZD983467663  
State ID# : 773

Name	Affiliation	Phone #	Date	Information
Stan Ashby	Roosevelt Irrig. District	935-4571	01-13-89	See Contact Report
Tom Curry	ADEQ	207-4183	01-15-92	See Contact Report
Barbara Herron	ADEQ	207-4334	01-16-92	See Contact Report
Lisa Nelson	US EPA	415-744-2347	03-18-92	See Contact Report
Bea Shreeve	ADEQ	207-4108	04-21-92	See Contact Report
Bea Shreeve	ADEQ	207-4108	05-06-92	See Contact Report
Barb Gullett	Maidware Pro. of Phx. Inc.	936-1161	05-11-92	See Contact Report

# CONTACT REPORT

AGENCY AFFILIATION: Roosevelt Irrigation District		
DEPARTMENT:		
ADDRESS/CITY: P.O. Box 95, Buckeye		
COUNTY/STATE/ZIP: Arizona, 85236		
CONTACT	TITLE	PHONE
1. Stan Ashby	Superintendent	935-4571
2.		
PERSON MAKING CONTACT: Ana I. Vargas <i>JA for AW</i>		DATE: 1/13/89
SUBJECT: Roosevelt Irrigation District Wells.		
SITE NAME: Cyprus Specialty Steel		EPA ID: AZD982007023

## INFORMATION RECEIVED

Mr. Ashby said that water drawn from irrigation wells located between Lower Buckeye Road and Van Buren (north and south), 27th Avenue and 7th Street (east and west) goes to an interconnected distribution system that irrigates 38,000 acres of farmland, located west of the Agua Fria River, about 9 miles west of Cyprus Specialty Steel.

**CONTACT REPORT**

<b>AGENCY/AFFILIATION:</b> ADEQ		
<b>DEPARTMENT:</b> Remedial Projects Section		
<b>ADDRESS/CITY:</b> 3033 North Central		
<b>COUNTY/STATE/ZIP:</b> Maricopa/AZ/85012		
<b>CONTACT (S)</b>	<b>TITLE</b>	<b>PHONE</b>
1. Tom Curry	Env. Program Specialist	602-207-4183
2.		
<b>ADEQ PERSON MAKING CONTACT:</b> Scott Goodwin S.G.		<b>DATE:</b> 01-15-92
<b>SUBJECT:</b> WQARF Data Near Data Packaging		
<b>SITE NAME:</b> Data Packaging		<b>EPA ID#:</b> AZD983467663

Tom indicated a nested group of four monitor wells has been installed near Data packaging. He also provided the chemical analysis of a January 9, 1992 sampling of these wells.

# CONTACT REPORT

<b>AGENCY/AFFILIATION:</b> ADEQ		
<b>DEPARTMENT:</b> Underground Storage Tank Section		
<b>ADDRESS/CITY:</b> 3003 North Central		
<b>COUNTY/STATE/ZIP:</b> Maricopa/AZ/85012		
<b>CONTACT (S)</b>	<b>TITLE</b>	<b>PHONE</b>
1. Barbara Herron	Res. & Stat. Analyst II	602-207-4334
2.		
<b>ADEQ PERSON MAKING CONTACT:</b> Scott Goodwin S.G.,		<b>DATE:</b> 01-16-92
<b>SUBJECT:</b> UST at 425 South 67th Avenue		
<b>SITE NAME:</b> Data Packaging		<b>EPA ID#:</b> AZD983467663

ADEQ has no record of a UST at this address.

# CONTACT REPORT

<b>AGENCY/AFFILIATION:</b> U. S. EPA		
<b>DEPARTMENT:</b> Site Evaluation Section		
<b>ADDRESS/CITY:</b> 75 Hawthorne Street, San Francisco		
<b>COUNTY/STATE/ZIP:</b> California/94105		
<b>CONTACT (S)</b>	<b>TITLE</b>	<b>PHONE</b>
1. Lisa Nelson	Ariz. PA/SI Grant Manager	415-744-2347
2.		
<b>ADEQ PERSON MAKING CONTACT:</b> Scott Goodwin S.C.		<b>DATE:</b> 03-18-92
<b>SUBJECT:</b> Sampling at Data Packaging		
<b>SITE NAME:</b> Data Packaging		<b>EPA ID#:</b> AZD983467663

EPA now believes no further sampling is warranted at the Data Packaging Site. This decision was based on low ground water use for public supply within four miles of the site.



# CONTACT REPORT

<b>AGENCY/AFFILIATION:</b> ADEQ		
<b>DEPARTMENT:</b> Hazardous Waste Compliance Unit		
<b>ADDRESS/CITY:</b> 3033 North Central		
<b>COUNTY/STATE/ZIP:</b> Maricopa/AZ/85012		
<b>CONTACT (S)</b>	<b>TITLE</b>	<b>PHONE</b>
1. Bea Shreeve	Secretary	602-207-4108
2.		
<b>ADEQ PERSON MAKING CONTACT:</b> Scott Goodwin S.G.		<b>DATE:</b> 04-21-92
<b>SUBJECT:</b> Hazardous Waste Manifests		
<b>SITE NAME:</b> Data Packaging		<b>EPA ID#:</b> AZD983467663

Bea provided the box numbers for the Old Hazardous Waste Manifests in the archives. No manifests were found for Data Packaging.

# CONTACT REPORT

<b>AGENCY/AFFILIATION:</b> Maidware Products of Phoenix Inc.		
<b>DEPARTMENT:</b>		
<b>ADDRESS/CITY:</b> 425 South 67th Avenue		
<b>COUNTY/STATE/ZIP:</b> Maricopa/AZ/85043		
<b>CONTACT (S)</b>	<b>TITLE</b>	<b>PHONE</b>
1. Barb Gullett		602-936-1161
2.		
<b>ADEQ PERSON MAKING CONTACT:</b> Scott Goodwin S.G.		<b>DATE:</b> 05-11-92
<b>SUBJECT:</b> Number of Employees. Hazardous Waste Products		
<b>SITE NAME:</b> Data Packaging		<b>EPA ID#:</b> AZD983467663

Maidware indicated they have 35 employees. They also indicated they do not generate any hazardous wastes.

# CONTACT REPORT

<b>AGENCY/AFFILIATION:</b> ADEQ		
<b>DEPARTMENT:</b> Hazardous Waste Compliance Unit		
<b>ADDRESS/CITY:</b> 3033 North Central		
<b>COUNTY/STATE/ZIP:</b> Maricopa/AZ/85012		
<b>CONTACT (S)</b>	<b>TITLE</b>	<b>PHONE</b>
1. Bea Shreeve	Secretary	602-207-4108
2.		
<b>ADEQ PERSON MAKING CONTACT:</b> Scott Goodwin S.G.		<b>DATE:</b> 05-26-92
<b>SUBJECT:</b> Waste product information on Maidware, I-TEK, Lambertson		
<b>SITE NAME:</b> Data Packaging		<b>EPA ID#:</b> AZD983467663

ADEQ has no RCRA information on Maidware, I-TEK Speciality Molding or Lambertson Industries.